

# PATENT SPECIFICATION

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## COMPLETE SPECIFICATION.

### Improvements in or relating to Chairs.

We, GENERAL STEEL PRODUCTS INC., a Corporation organised and existing under the laws of the State of North Carolina, United States of America, of 1151, Blandwood Circle, High Point, North Carolina, United States of America (Assignee of NED WORTH MIZELLE and BILLY ERNEST MARR), do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to chairs.

Reclining chairs in which a seat and a back rest are each adjustable in position between a normal position and a reclining position, and rocking chairs in which a seat and a back rest are rockably mounted on a platform rocker base are each well known. It is realized that a versatile and comfortable chair could be provided if a reclinable chair chassis could be combined with the rocker mechanism of a platform rocker. Such a chair in the normal upright position of the seat and back rest could provide a comfortable rocking chair. However, if the seat and back rest were positioned in a reclining position, the weight of an occupant of the chair would shift rearwardly and there would be a risk that the chair might rock or tilt too far backwardly so as to place the occupant's head too low for comfort and the rocking feature become a detriment.

An object of the present invention is to provide a reclinable platform rocking chair in which rocking motion is restricted when the chair seat and back rest are in a reclining position.

According to the present invention a reclining platform rocking chair comprises a base, a chair portion rockable on said base, a seat and back supported by movable links of a fixture affixed to said chair portion for

movement between a normal upright seating position in which the seat is generally horizontal with the back angularly disposed thereto at a normal seating angle and a reclined position in which said seat and back are tilted rearwardly from said normal position, means for mechanically linking said base and said chair portion and including connections movable relative to each other between established limits when said chair is in said normal position to permit rocking motion of said chair portion on said base, and means connected between one of said movable links and said mechanical linking means for moving said connections to one of said established limits to prevent further relative motion of said connections in one direction when said chair is in said reclined position and thus to prevent rocking motion of said chair portion on said base in one direction.

Preferably there is included a leg rest which is supported by movable links of said fixture for movement between retracted below the seat in the normal, upright seating position and extended ahead of and generally in line with the seat in the reclined position. By arranging for the seat, back and leg rest to be supported by movable links of said fixture for movement between said normal, upright seating position and said fully reclined position and an intermediate position in which the seat is tilted rearwardly intermediate said normal and reclined position with the seat and back rest subtending said normal seating angle and said leg rest is in said extended leg supporting position, a three-position, three-way reclining platform rocking chair can be provided.

The term three-way refers to a reclining chair in which the back rest, the seat and an extensible leg rest are each individually pivotally supported for movement relative to

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the chassis of the chair. The term three-position refers to the three positions in which these three basic components of the chair may be positioned on the chair chassis:

- 5 (1) an upright, normal position in which the seat and the back of the chair are angularly disposed relative to each other subtending a normal upright seating angle with the seat generally horizontal and the leg rest retracted to a position below the seat, (2) an intermediate, or semi-reclined, position in which the seat is tilted rearwardly from the horizontal with the back and seat still subtending the normal seating angle but with the leg rest extended in front of and generally in line with the seat in a leg supporting position, and (3) a fully reclined position in which the back is tilted rearwardly relative to the seat to subtend a larger angle than in a normal seating position with the seat tilted rearwardly at a greater angle than in the intermediate position and the leg rest in the extended leg supporting position generally in line with and in front of the seat. In the fully reclined position, the chair occupant is in a generally supine position.
- 10 Three-way, three-position TV rocking chairs have become increasingly popular in recent years. The occupant of the chair adjusts the position of the chair components on the chair chassis by pressing rearwardly in the seat through applying pressure on the arm rests, which pressure swings the seat and back rearwardly on the chair chassis and tilts them rearwardly while driving the leg rest upwardly and forwardly from a nesting position below the seat to its extended leg supporting position. In the intermediate position, the occupant's body position on the chair chassis is generally erect, facing forwardly and slightly reclined with his legs extending ahead of and resting on the leg rest. By applying further pressure on the seat, the occupant causes the back to tilt rearwardly relative to the seat approaching the horizontal position and tilts the seat further to the rear while maintaining the leg rest generally in line with and ahead of the seat to support the legs, thus placing the occupant in a generally supine position with his legs supported on the leg rest in front of him.
- 15 In a preferred embodiment of the invention a platform rocking chair having a platform rocker base rockably supporting a chair chassis to which a fixture is affixed for movably supporting the seat, back and an extensible leg rest. The fixture supports the seat, back and leg rest for movement from a normal upright position in which the seat is generally horizontal with the back angularly disposed to it at a normal seating angle and a leg rest retracted below the seat, a fully reclined position in which the seat and back

are pivoted relative to each other to subtend a larger angle than in the normal seating position with the seat tilted rearwardly from the horizontal and the leg rest extended ahead of and generally in line with the seat in a leg supporting position, and an intermediate position in which the seat is tilted rearwardly from the horizontal intermediate the normal and reclined positions with the seat and back subtending the normal seating angle and the leg rest in the extended leg supporting position.

A slotted cam plate is pivotally mounted to the chair base and slidably fitting within the slot is a cam follower which is pivotally connected at one point to the chair chassis and at another point to that portion of the fixture which movably supports a front portion of the seat. The cam follower is positioned at approximately the mid point of the slot when the chair is in the normal position so that the follower rides up and down in the slot when the chair in the normal position is rocked on the platform base. When the chair is reclined to the intermediate position, the movement of the seat supporting fixture relative to the chair chassis lifts the cam follower to the end of the slot in engagement with the cam and prevents further rocking motion of the chair on the rocker base. The cam plate, follower, and linkage between the follower and the seat support fixture further pivot relative to each other during motion of the chair between the intermediate and the fully reclined positions so that the follower remains in engagement with the end of the cam slot and continues to prevent any rearward rocking motion of the chair.

The invention will be further described by way of example with reference to the accompanying drawings in which:

Figure 1 is a perspective view of the chair in the normal, upright seating position in which the seat is generally horizontal and subtends a normal seating angle with the back and the leg rest in the retracted position below the seat and nesting in the chair chassis.

Figure 2 is a perspective view of the chair in the fully reclined position in which the seat is tilted rearwardly at the maximum angle with the back pivoted rearwardly subtending a larger angle with the seat than in the normal upright position to place the back in a nearly horizontal position and the leg rest extended ahead of the seat in a leg supporting position.

Figure 3 is a partial side elevation of the chair with the left hand chair side member removed to expose the left hand seat, back and leg rest supporting fixture with the chair in the normal upright position of Figure 1.

Figure 4 is the same view of Figure 3 with the chair and fixture in the intermediate

position, i.e., between the position shown in Figures 1 and 2.

Figure 5 is the same view as Figure 3 with the chair and fixture in the fully reclined position, illustrated in Figure 2.

Figure 6 is a front sectional view taken along section line 6—6 of Figure 3.

Figure 7 is a front sectional view taken along section line 7—7 of Figure 3.

Figure 8 is a partial sectional side elevation approximately midway between the center line and the left side of the chair showing the chair rocker and locking mechanism with the chair in the normal upright position of Figure 3.

Figure 9 is the same view as Figure 8 with the chair in the intermediate position of Figure 4.

Figure 10 is the same view as Figure 8 with the chair in the fully reclined position of Figure 5.

Referring first to Figure 1, the chair is seen in the normal seating position in which the chair portion, or chassis 11, to which is affixed the fixture supporting seat 13, the back 14 and the leg rest 15, with the chair portion 11 being rockably mounted on a platform rocker base 16. To the inside of the sides 12 of the chair portion 11 is affixed a fixture which supports the seat 13, the back 14 and the extensible leg rest 15, the fixture being described subsequently. In the normal upright seating position of Figure 1, the seat 13 is in a generally horizontal position with the back 14 subtending a normal seating angle of the seat 13 and the leg rest 15 retracted into a nesting position below the seat 13 so as to form the lower front portion of the chair. The chair portion 11, including the sides 12, the seat 13, the back 14 and the leg rest 15, may be rocked as a unit on the base 16 in the manner to be described subsequently.

Figure 2 illustrates the chair in the fully reclined position in which the seat 13 is tilted rearwardly with respect to the side members 12 and the back 14 is pivoted rearwardly relative to the seat 13 to subtend a substantially larger angle with the seat 13 than in the normal seating position of Figure 1. The leg rest 15 has been thrust forwardly from the nesting position of Figure 1 into a position ahead of and generally in line with the seat 13 in a leg supporting position for the occupant of the chair. In this position, the chair portion 11 is prevented from rocking rearwardly on the chair base 16 by means of the mechanism to be described subsequently.

The chair in the intermediate position is not illustrated by a full drawing of the chair as in Figures 1 and 2 but the relative positions of the seat, back and leg rest may be readily observed in Figure 4. In the intermediate position of the chair, the seat 13 is tilted rearwardly from the normal seating position of Figure 1 but the back rest 14 is not tilted rearwardly relative to the seat 13 and subtends the same angle with the seat as in the normal upright position. In the intermediate position, the leg rest 15 is in the same general position ahead of and generally in line with the seat 13 as illustrated in Figure 2.

For a description of the general construction of the chair and fixture which supports the movable chair components, refer first to Figures 3, 6 and 7. The chassis of the chair, or the chair portion 11, is of conventional frame construction with upright members 17 and 18 on both sides at the front and rear which are joined at the top and bottom by the horizontal arm members 19 and the lower side members 20, transverse lower chair support members 21 and 22 extending across the lower front and rear portions of the chair chassis 11. Rockers 23 and 24, having an arcuate lower profile and affixed to the transverse support members 21 and 22, rockably support the chair portion 11 on the base rails 25 and 26 which, along with the transverse base members 27 and 28, form the base 16 on which the chair rests. The center portion of the rockers 23 and 24 are movably connected to the base rails 25 and 26 by conventional rocker springs 29, as best seen in Figure 8.

A fixture 30, affixed by bolts or screws 35 to each of the left and right side members 20, movably supports the chair seat 13, the back 14 and the leg rest 15 on the frame of the chair chassis 11 to which the rockers 23 and 24 are affixed and rest on the base rails 25 and 26. The seat 13, on which padding is applied as shown in Figure 1, is affixed to a seat link 44 of the fixture to be described subsequently. The back 14, on which padding is applied as well as the back frame 31 which supports the wings of the back, is affixed to a back link 46 of the fixture. The leg rest 15, which also may be padded, is affixed to a leg rest link 48 of the fixture. The fixed portion of the fixture is the base link 40, which is affixed to the side member 20 of the chair portion by the connections 35, and 44, the back link 46 and the leg rest link 48 the base link 40 is connected to the seat link by a linkage system about to be described so that the seat 13, back 14 and leg rest 15 are movable between the three different positions of the chair previously described by the motion of the respective links to which they are affixed.

The fixture 30 will be described by reference to Figures 3—5. Seat link 44 is supported upon the base link 40 by structure which includes a rear support link 50 mounted at its lower end upon a fixed pivot 52 adjacent to the rear end of the base link 40. Rear support link 50 is limited in pivotal 125

movement about fixed pivot 52 by a pair of spaced stop pins 54 and 56 on the base link 40 which project from the base link into the path of movement of the rear support link 50. A pivot 58 connects the upper end of rear support link 50 to the seat link 44 at a location spaced a little forwardly of the rearward end of the seat link 44.

Seat link 44 is also supported upon the base link 40 by a front support link means which includes a link 60 pivoted at its lower end upon fixed pivot 62 on base link 40. At the upper end of link 60, a pivot 64 connects link 60 to a bell crank 66 having a pair of arms 68 and 70 projecting from pivot 64. At the outer or distal end of bell crank arm 68, a pivot 72 connects bell crank 66 to the seat link 44 at a location spaced forwardly from the pivot 58. At the end of the other arm 70 of the bell crank 66, a pivot 74 connects the bell crank to one end of a control link 76 which is connected at its other end by a pivot 78 to the back link 46 at a location above the lower end of the back link. A back pivot 80 pivotally connects the lower end of the back link 46 to the rear end of the seat link 44.

The front support link means, which includes the front support link 60 and the bell crank 66 may be termed a compound link which has an effective link length equal to the straight line distance between the pivots 62 and 72. The effective link length of the front support link means may be varied by pivoting the bell crank 66 about the pivot 64, this action being accomplished by the control link 76 which drives the bell crank 66 about pivot 64 when the back link 46 is pivoted about back pivot 80 relative to the seat link 44. This action is best seen by comparing Figures 3 and 4.

The leg rest link 48 is connected to the base link 40 by a structure which includes a pair of cross links 88 and 90 which are pivotally connected to each other intermediate their ends at the pivot 92. One end of the cross link 88 is pivotally mounted upon the forward end of the seat link 44 at a pivot 94, while one end of the other cross link 90 is coupled to the seat link 44 by a first leg rest support link 96 pivoted at one end at pivot 98 on the seat link 44 and pivoted at its other end to the cross link 90 by pivot 100. The top end of cross link 90 is pivoted to the leg rest link 48 by pivot 102. A second leg rest support link 104 is connected to leg rest link 48 by a pivot 106 and to other end of cross link 88 by the pivot 108 so that the second support link 104 extends in generally parallel relationship to cross link 90. The above leg rest linkage is controlled and guided in movement relative to the base link 40 by a third leg rest support link 110 mounted at one end upon fixed pivot 112 adjacent to the forward end

of the base link 40. The opposite end of the third support link 110 is pivotally connected to both cross links 88 and 90 at their connecting pivot 92.

A stop is installed on the third leg rest support link 110 which consists of the pin 114 on the link 110 which engages with one side of cross link 88 to define the retracted position of the linkage, as seen in Figure 3, and also serves as a supporting abutment to cross link 88 during movement of the leg rest linkage between the retracted position of Figure 3 and the intermediate position of Figure 4 in which the leg rest is extended. Another stop pin 116 is installed on control link 76 to engage the downwardly projecting ear 118 fixedly mounted on seat link 44 to establish the extreme inclined position of the back link 46 relative to the seat link 44 in the fully reclined position illustrated in Figure 5.

To understand operation of the fixture, reference should be made to Figures 3—5. With the fixture in the normal upright position of the chair, as shown in Figure 3, the seat link 44 is supported upon the base link 40 supporting the chair seat 14 in a substantially horizontal position while the back link 46 projects generally perpendicular to the seat link 44. In this position of the fixture, the rear support link 50 is at its forward limited movement about the fixed pivot 52 on the base link 40 and engages the stop pin 54 on the base link. Front seat link pivot 94, to which the cross link 88 is pivoted, is located somewhat above and spaced forwardly of the fixture from the fixed pivot 112 on the base link 40. In this position the fixture is in the normal upright position with the seat substantially horizontal, the back 105 subtending a normal seating position relative to the seat and the leg rest is retracted to extend across the chair immediately below the front of the seat 14.

To shift the chair from the normal position of Figure 3 to the intermediate, or semi-reclined position of Figure 4, the occupant of the chair exerts a rearward force against the seat and back rest. This action causes the rear support link 50 to swing rearwardly 115 about the fixed pivot 52, while at the same time, link 60 of the front support link means swings rearwardly about its pivot 62 on the base link 40. In moving between the normal and the intermediate positions, the seat is 120 tilted upwardly and rearwardly in a swinging and pivotal motion relative to the side members 20 and chassis of the chair about the fixed pivots 52 and 62. By comparing Figures 3 and 4, it can be seen that the seat link 44 is displaced rearwardly of the chair and its forward portion is tilted upwardly relative to that of Figure 3. During this first phase of movement there is no pivotal movement 125 between the seat link 44 and the back link 130

46 and the seat and back continue to subtend the same angle.

In the foregoing motion of seat link 44 the pivot 94 is carried in an upward rearwardly extending arc to pass above the fixed pivot 112. This motion of the pivot 94 enables the link 88 to rotate the control link 110 from the substantially vertical normal position of Figure 3 into a substantially horizontal position indicated in Figure 4. This action elevates the leg rest link 48 from the retracted position of Figure 3 and concurrently swings the leg rest link 48 from the substantially vertical position of Figure 3 to a substantially horizontal leg supporting relationship ahead of the link 44 as shown in Figure 4. During this portion of the movement of the leg rest linkage, stop 114 remains in engagement with the cross link 88.

When the fixture arrives in the intermediate reclined position of Figure 4, the rear support link 50 is engaged by the stop 56 to prevent further rearward pivotal movement of the link 50 about its fixed pivot 52. To move the fixtures from the intermediate reclined position of Figure 4 to the fully reclined position of Figure 5, the occupant of the chair exerts a rearward force against the upper portion of the back rest which is transmitted to the back link 46 in a direction to urge the back link 46 to pivot rearwardly about the back pivot 80.

This pivotal motion of the back link 46 causes the back link 46 to increase the angle between it and the seat link 44 from the substantially perpendicular relationship of Figures 3 and 4 to the obtuse angle of Figure 5. This pivoting action of the back link 46 carries the control link 76 rearwardly which in turn drives the bell crank 66 in a counter-clockwise motion (as viewed in Figures 4 and 5) about the pivot 64, thus rotating the bell crank 66 from the position of Figure 4 to the position of Figure 5. This action further increases the effective link length of the front supporting link means and, in so doing, raises the front portion of the seat link 44 and tilts the seat further rearwardly. In contrast to the motion of the seat between the normal and intermediate positions, in which the motion of the seat is a swinging one, motion of the seat in moving to the fully reclined position is a pivotal movement relative to the single stationary pivot of the stop 56. Engagement of the stop pin 116 with the ear 118 on the seat link 44 establishes the extreme reclined position of the chair. During this latter movement, the leg rest link 48 is further elevated from the position of Figure 4 and maintained in substantially the same relationship with the seat link 44 by the link 110.

As best seen in Figure 6, the lower portions of the lower arms 70 of the bell cranks

66 of the two fixtures are joined by a cross tie 67 and vertical tension springs 69 connect the cross tie 67 to each of the side members of the seat 13. As illustrated in Figure 7, the rear cross piece 71 of the seat 13 has a pair of downwardly projecting ears 73 which are connected to vertical springs 75 connected to brackets 73a attached to the rear transverse support member 22 of the chair chassis. The tension springs 69 and 75 apply a constraining force to the movement of the seat 13 and seat link 44 relative to the chair portion 11 and the base link 40.

The above described operation of the fixture, in moving the seat, back and leg rest relative to the chair chassis, customarily takes place while the chair is stationary on the rocker base 16. The mechanism by which rocking motion of the reclining chair is restricted when the chair is placed in or between the intermediate and reclining positions will now be described.

Referring now to Figures 6 and 8-10, a vertically disposed cam plate 120, having longitudinal slot 122 with upper and lower slot ends 123 and 124, is pivotally connected to essentially the mid-point of the front transverse base member 27 of the chair base 16 so that the cam plate can pivot forwardly and rearwardly of the chair. A cam follower plate 128, having a protruding follower pin 130, which rides within the slot 122, is pivotally connected at an end opposite that of pin 130 to the front transverse lower chair support member 21 by pivot 132 so as to pivot along with the cam plate 120. One end of a cam follower actuating link 134 is pivotally connected to the cam follower plate 128 by pivot 136 and the other end is pivotally connected at pivot 138 to the cross tie 67 connecting to the lower ends of the bell crank 66 of the fixture 30. The cam follower plate 128 is positioned so that the cam pin 130 is intermediate the ends 123 and 124 of the slot in the cam plate when the chair is positioned in the normal position, as illustrated in Figure 8.

When the chair in the normal position is rocked back and forth so the rockers 23 and 24 roll along the base rails 25 and 26 against the action of the rocker springs 29, the follower pin 130 moves freely upwardly and downwardly in the slot 122 of the cam plate 120 while this plate pivots so that the rocking motion of the chair is generally unhampered.

When the chair is moved to the intermediate position as described previously, and the seat link 44 of the fixture is swung rearwardly and upwardly, the lower edge of the bell crank 66, to which the cross tie 67 is attached, is also moved upwardly and rearwardly relative to the lower chair transverse support member 21. This motion, transmitted through the cam follower actuating link 134

link 134, lifts the cam follower and pin 130 from the central portion of the slot of Figure 8 to the upper end 123 of the cam plate slot while rotating the cam plate 120 rearwardly to the position illustrated in Figure 9. Engagement of the follower pin 130, which is connected to the chair chassis 11 at pivot 132, with the top end 123 of the slot in the cam plate 120, which is connected to the chair base at pivot 126, prevents further rearward rocking motion on the base 16 of the chair chassis 11 since the forward end of the chair rockers 23 and 24 cannot move upwardly.

When the chair is moved from its intermediate position to the fully reclined position, in the manner previously described, the motion of the bell crank 66 of the chair fixture moves the cross tie 67 from the position of Figure 9 further to the rear relative to the lower chair transverse support member 21. This motion, transmitted through the cam follower actuating link 134, continues to rotate the cam plate 120 and the follower 128 further rearwardly while moving the rockers 23 and 24 slightly forwardly and compressing the forward rocker springs 29 as illustrated in Figure 10. Since the cam pin 130 remains engaged with the end 123 of the slot in the cam plate 120, any rearward rocking motion of the chair portion 11 on the rocker base 16 is still impossible.

In this manner the above described cam plate and cam follower prevents rearward rocking motion of the chair chassis 11 on the base 16 while the chair is in the intermediate position or anywhere between the intermediate and the fully reclined positions. Obviously, as the chair is moved from the intermediate position toward the normal position, the cam follower pin 130 in moving downwardly in the slot of the cam plate 120 frees the chair 11 for a rearward rocking motion.

Although the rocker locking mechanism illustrated utilizes a cam plate which is pivoted to the chair base, obviously a reverse mechanism could be easily utilized in which slotted cam plate is pivotally connected to the chair chassis at the transverse member 21 and to the cross tie 67 and the cam follower pivotally connected to the base portion.

While the above manner describes and illustrates a preferred embodiment of the invention, it should be understood that the invention is not restricted solely to the described embodiment but that it covers all modifications which should be apparent to one skilled in the art and which fall within the scope of the invention.

#### WHAT WE CLAIM IS:—

1. A reclining platform rocking chair comprising, a base, a chair portion rock-

able on said base, a seat and back supported by movable links of a fixture affixed to said chair portion for movement between a normal, upright seating position in which the seat is generally horizontal with the back angularly disposed thereto at a normal seating angle and a reclined position in which said seat and back are tilted rearwardly from said normal position, means for mechanically linking said base and said chair portion and including connections movable relative to each other between established limits when said chair is in said normal position to permit rocking motion of said chair portion on said base, and means connected between one of said movable links and said mechanical linking means for moving said connections to one of said established limits to prevent further relative motion of said connections in one direction when said chair is in said reclined position and thus to prevent rocking motion of said chair portion on said base in one direction.

2. A reclining platform rocking chair as claimed in claim 1 in which said mechanical linking means and said connection moving means comprise a cam member, a cam follower member operatively associated with said cam member and having an established path of travel relative to the cam member between established end limits, means for pivotally interconnecting said base and one of said members, means for pivotally interconnecting the other one of said members and said chair portion, and means for pivotally interconnecting said other one of said members and a movable link of said fixture to move said cam member relative to said follower member when said chair is moved between said normal and reclined positions, said cam and follower members being positioned intermediate of said established end limits when said chair is in said normal position to permit rocking of said chair portion on said base in both directions and said path of travel being of a length that said cam and follower members are positioned by said movable link at one of said end limits when said chair is in said reclined position to prevent rocking of said chair portion on said base in one direction.

3. A reclining platform rocking chair as claimed in claim 1 or 2 wherein said fixture includes, a base link affixed to said chair portion, a seat link affixed to said seat, seat support link means pivotally connecting said seat and said base links for swingably moving said seat link relative to said base link between said normal and reclined positions, and a back link affixed to said back and connected to said seat link.

4. A reclining, platform rocking chair as claimed in claim 3 wherein said interconnecting means between said other member

and said movable link pivotally connects at one end to said seat support link means.

5. A reclining platform rocking chair as claimed in claim 1 or 2 including a leg rest which is supported by movable links of said fixture for movement between and retracted below the seat in the normal, upright seating position and extended ahead of and generally in line with the seat in the reclined position.

10. A reclining platform rocking chair as claimed in claim 5 in which the seat, back and leg rest are supported by movable links of said fixture for movement between said normal, upright seating position and said fully reclined position and an intermediate position in which the seat is tilted rearwardly intermediate said normal and reclined position with the seat and back subtending said normal seating angle and said leg rest is in said extended leg supporting position.

15. A reclining platform rocking chair as claimed in claim 6 in which said means for pivotally interconnecting said other one of said members and a movable link of said fixture also moves said cam members relative to said follower member when said chair moves between said normal and intermediate position, and said path of travel is of a length that said cam and follower members are moved to one of said end limits when said chair is in or between said intermediate and reclined position to prevent rocking of said chair portion on said base in one direction.

20. A reclining platform rocking chair as claimed in claim 7 wherein said fixture comprises,

25. a base link affixed to said chair portion, a seat link affixed to said seat, a back link affixed to said back and pivotally connected to the rear portion of said seat link,

30. a plurality of spaced seat support links pivotally connecting between said seat and base links to swingably and pivotally move said seat link between said normal and intermediate positions,

35. leg rest support means affixed to said leg rest and pivotally connected between said seat and base links for coordinated movement between said retracted and extended positions on relative motion of said length,

40. stop means on said base link engageable with a rear one of said seat support links to establish said intermediate position,

45. and a control link pivotally connected between said back link and another one of said seat support links forward of said rear one to tilt said seat link rearwardly when said stop means engages said rear support link and said back

link is tilted rearwardly relative to said seat link in said reclined position.

9. A reclining platform rocking chair as claimed in claim 8 wherein one of said seat support links forward of said rear one has a pivotal connection to said other one of said members, whereby said cam and follower members are moved to the upper limit of said end limits by the motion of said seat support links in moving from said normal to said intermediate positions.

10. A reclining platform rocking chair as claimed in claim 9 wherein said seat support links include a rear support link pivotally connected between rear portions of said seat and base links and a compounded link pivotally connected between front portions of said seat and base links.

15. A reclining platform rocking chair as claimed in claim 10 wherein said compound link comprises

20. a first link pivotally connected at one end to said base link,

25. a bell crank pivotally mounted on said base link at one point,

30. and means for pivotally connecting other points on said bell crank to said seat link and to said control link.

35. A reclining platform rocking chair as claimed in claim 10 or 11 wherein said other one of members pivotally connects to said chair portion at one point and spaced therefrom is pivotally connected through a link to said bell crank.

40. A reclining platform rocking chair having a chair portion rockable on a base and an angularly disposed seat and back supported in conjunction with a leg rest on said chair portion by a fixture for movement between a normal position in which the seat is generally horizontal with the leg rest retracted thereunder and a reclined position in which the seat and back are tilted rearwardly from said normal position with said leg rest extended ahead of and generally in line with said seat,

45. a cam member having a generally vertically extending slot,

50. a cam follower member slidably fitting within said slot,

55. means for pivotally connecting one of said members and said base,

60. means for pivotally connecting one point of the other one of said members to said chair portion,

65. and means for pivotally interconnecting another point on said other one of said members and a portion of said fixture supporting said seat to position said follower member intermediate the ends of said slot when said chair is in said normal position and permit said chair portion to rock on said base,

70. said slot being of a length that said follower member is moved by the

75. 80. 85. 90. 95. 100. 105. 110. 115. 120. 125. 130.

5 motion of said fixture portion into engagement with one end when said chair is in said reclined position, thereby preventing rocking motion in one direction of said chair portion on said base.

10 14. A reclining platform rocking chair having a base rockably supporting a chair portion on which a fixture supports a seat, back and leg rest for movement between a normal upright position in which the seat is generally horizontal with the back angularly disposed at a normal seating angle and the leg rest retracted below said seat, a fully reclined position in which said seat and back subtend a larger angle than in said normal position with said seat tilted rearwardly and said leg rest extended ahead of and generally in line with said seat in a leg supporting position, and an intermediate position in which said seat is tilted rearwardly intermediate said normal and reclined positions with said seat and back subtending said normal seating angle and said leg rest in said extended leg supporting position,

15 a cam member having a generally vertically extending slot,

20 a cam follower member slidably fitting within said slot,

25 means for pivotally connecting one of said members and said base,

30 means for pivotally interconnecting one point of the other one of said members and said chair portion for generally vertical motion of said follower member in said slot,

35 and link means pivotally connected at one end to another point on said other one of said members and at the other end to that portion of said fixture movably supporting said seat, said means positioning said follower member intermediate the ends of said slot when said chair is in said normal position to permit rocking motion of said chair portion on said base,

40 said slot being of a length that said follower member engages one end of said slot upon movement of said fixture from said normal to intermediate positions and preventing rearward rocking motion of said chair portion on said base,

45 said link means pivoting about its ends while said follower and slot end remain engaged to prevent rocking motion during motion of said chair fixture between said intermediate and reclined positions.

50 15. A reclining platform rocking chair constructed and arranged substantially as hereinbefore particularly described with reference to and as illustrated in the accompanying drawings.

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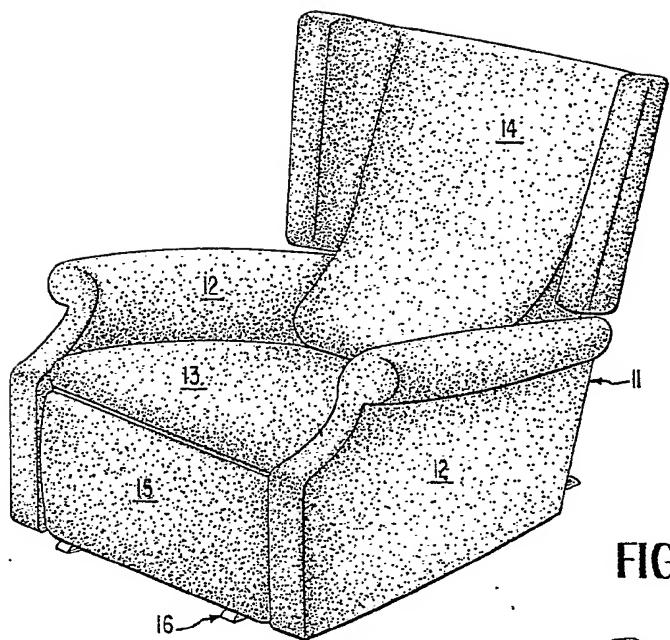
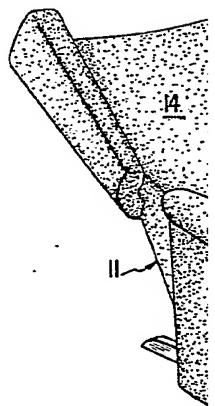


FIG. I



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FIG.1

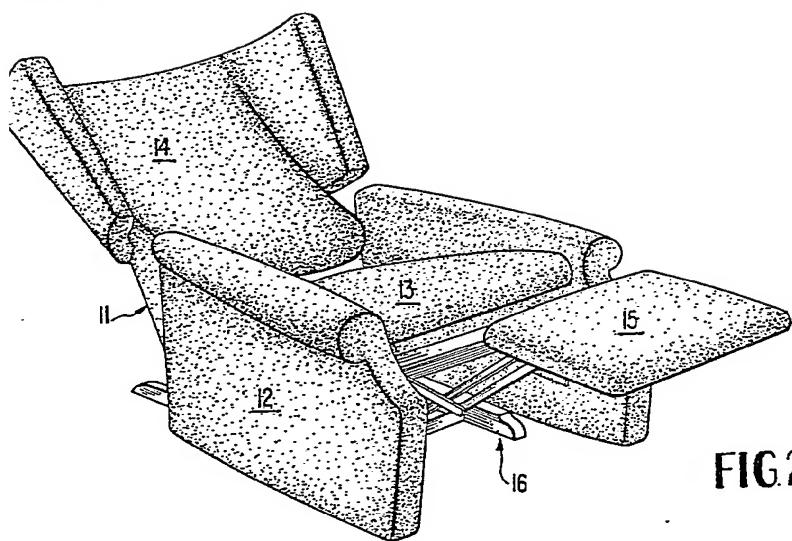


FIG.2

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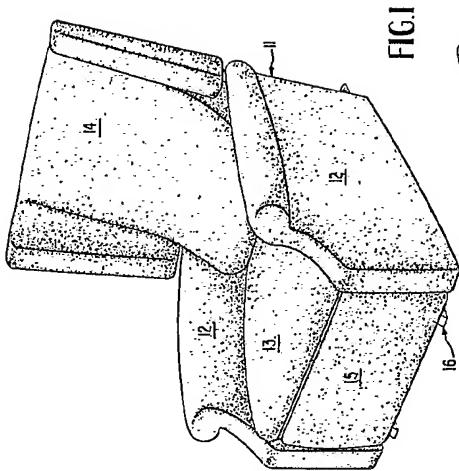


FIG. 1

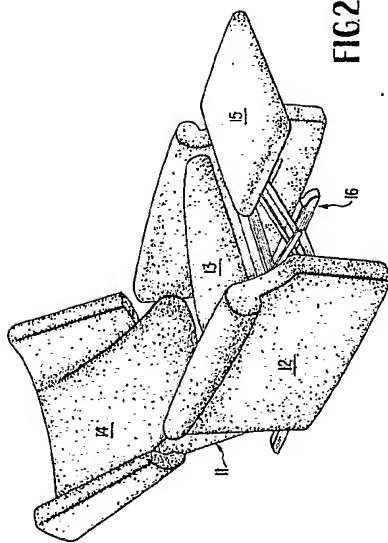
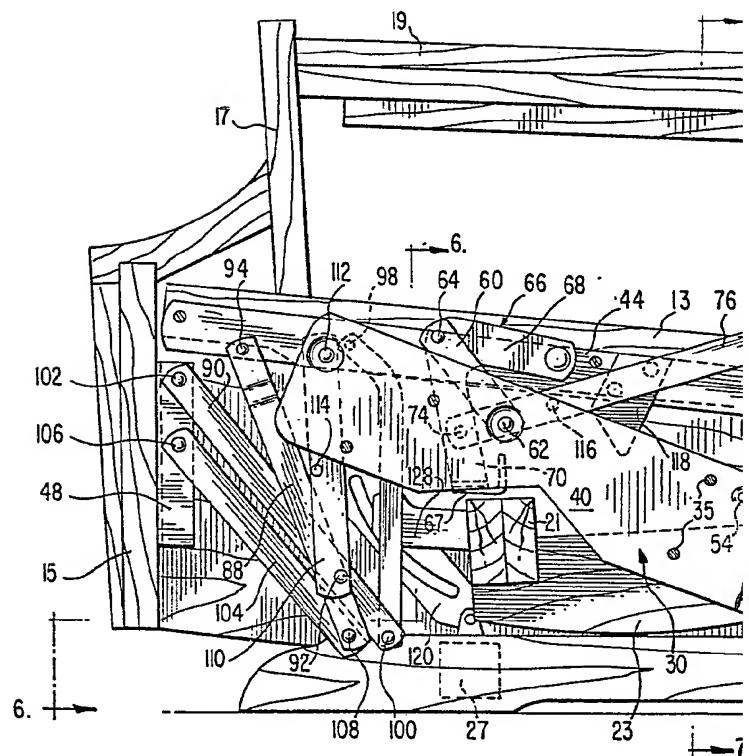
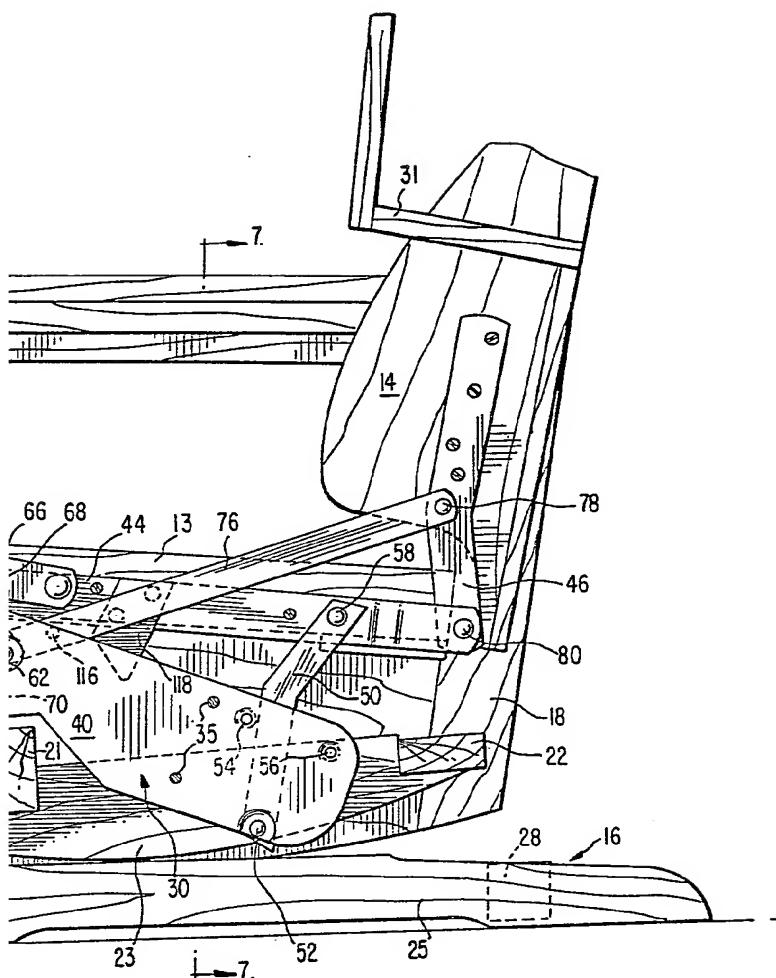


FIG. 2

**FIG.3**



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FIG.3

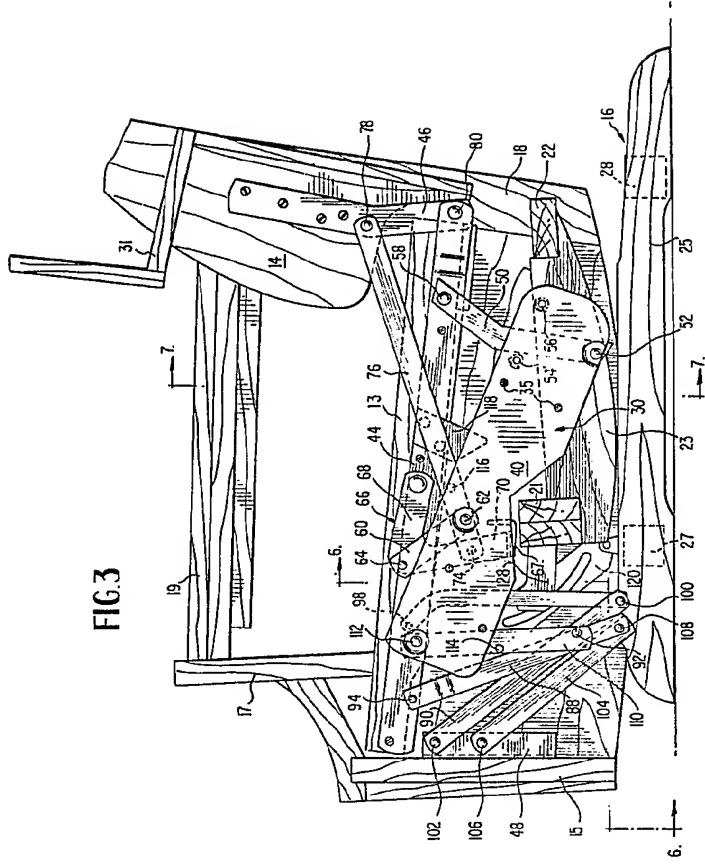
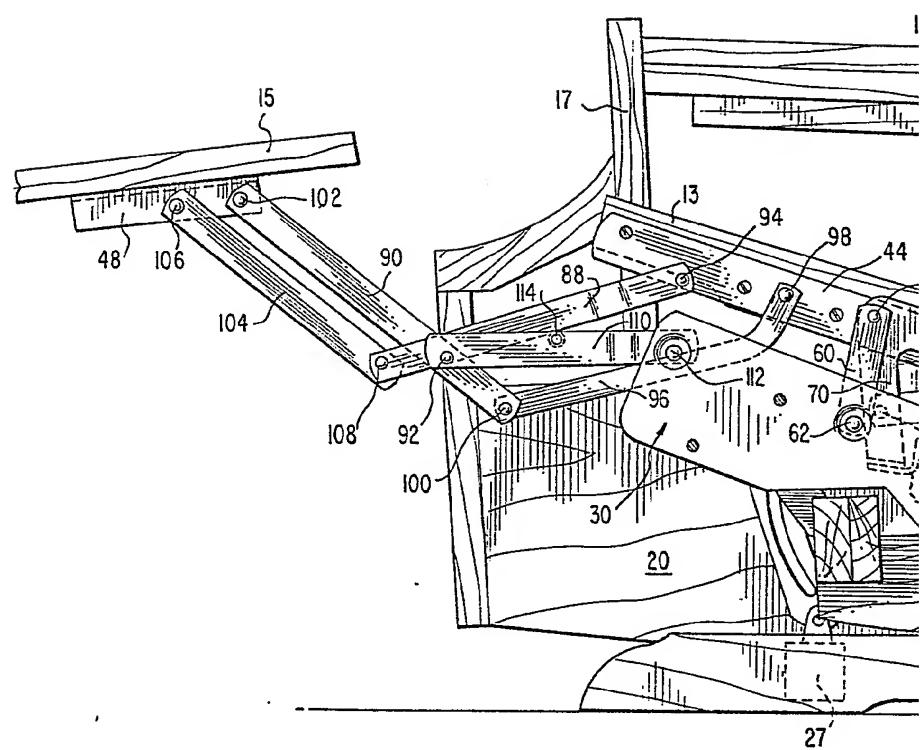
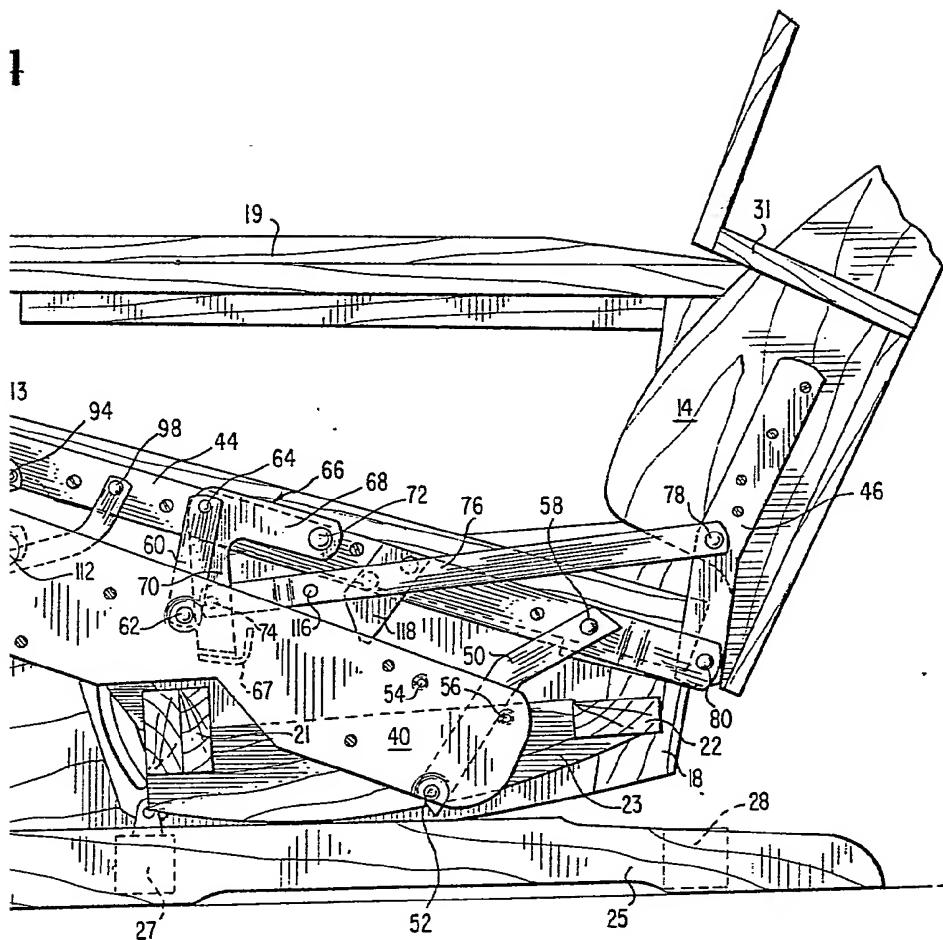


FIG. 4



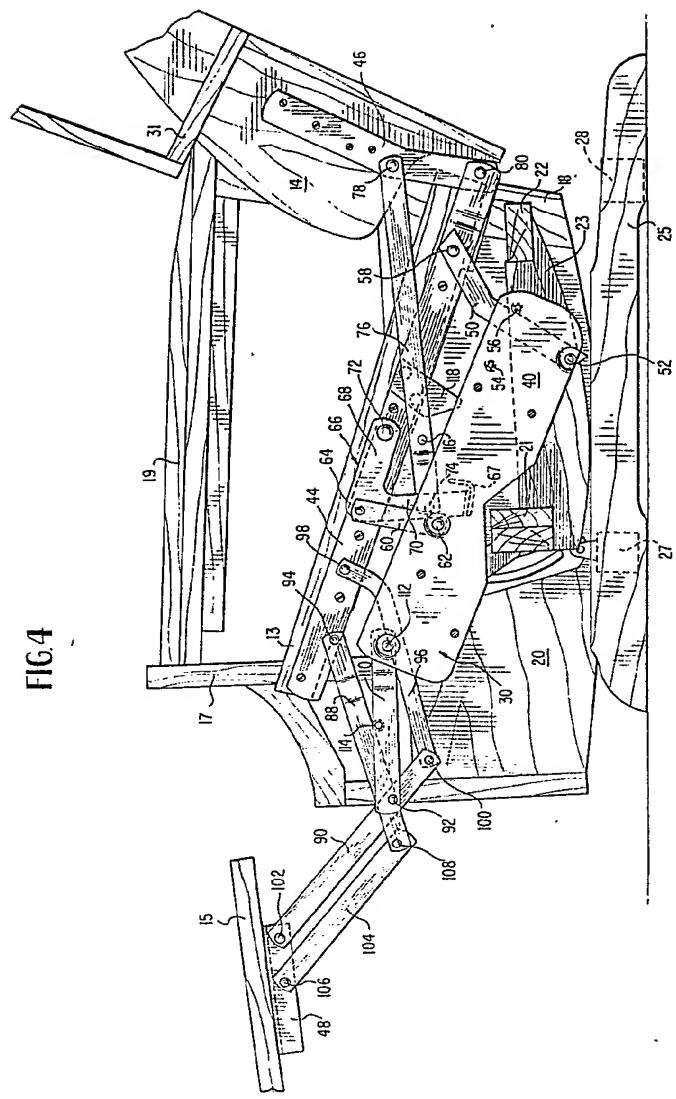
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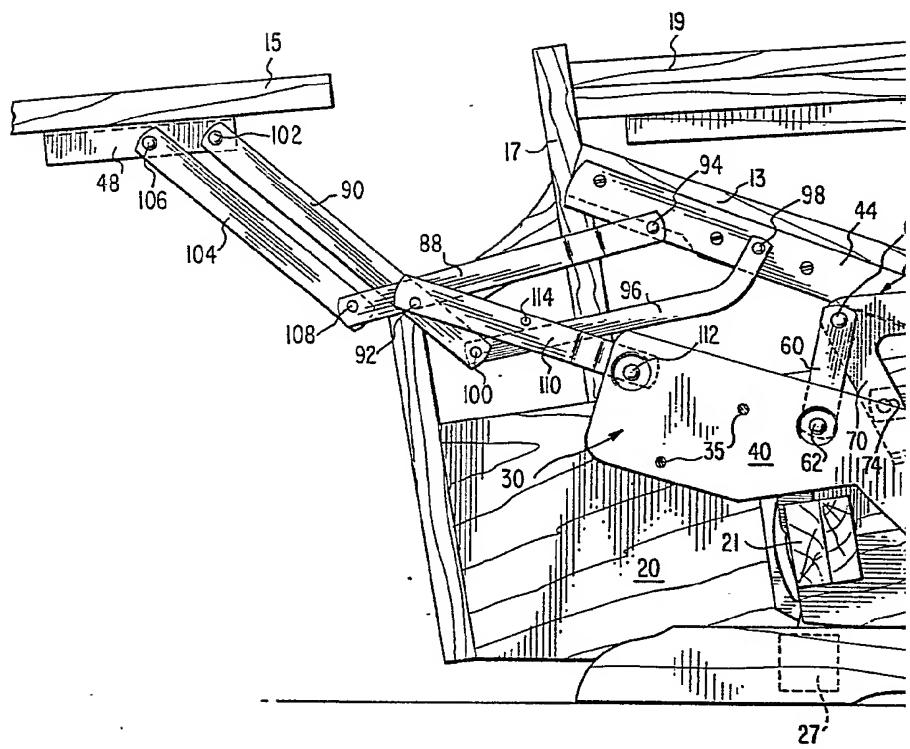


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Fig. 4



**FIG.5**



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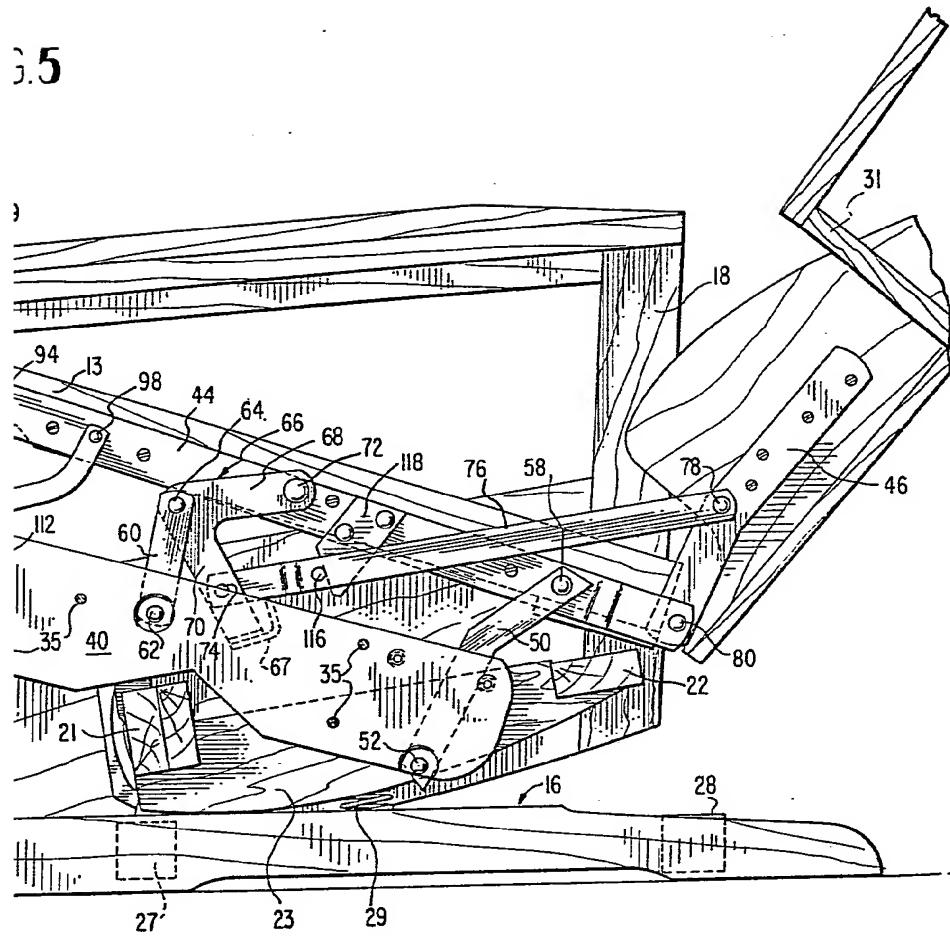
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FIG. 5

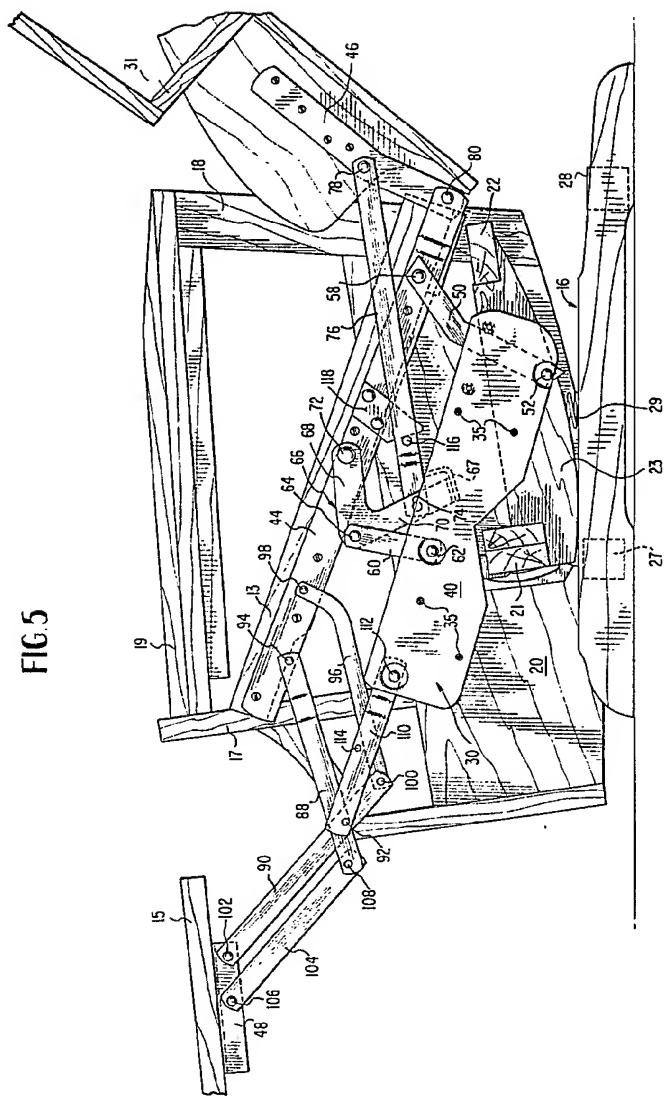
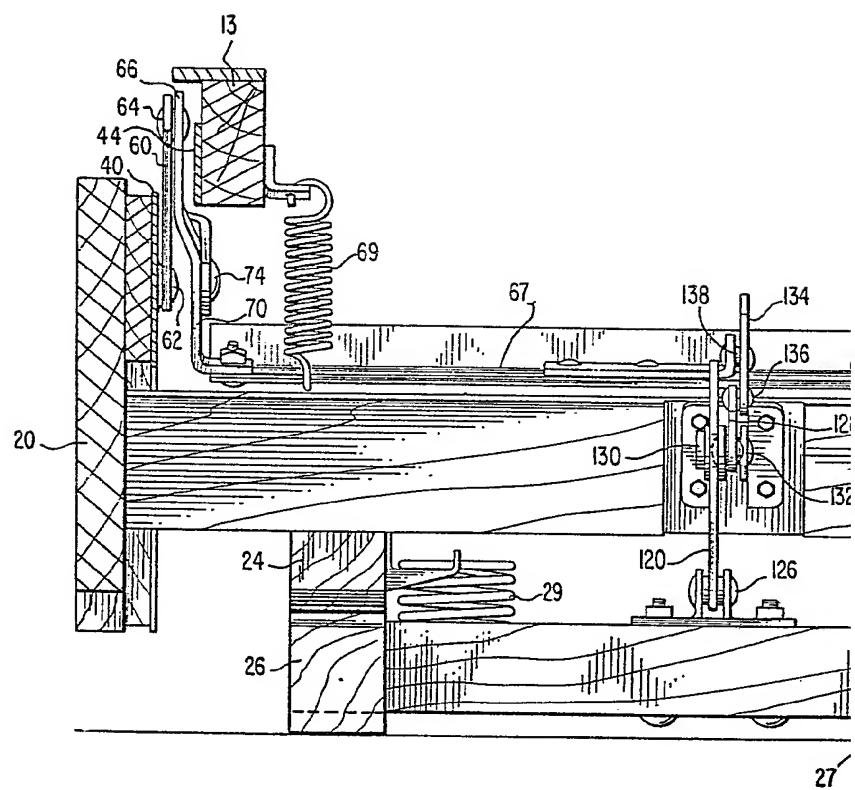
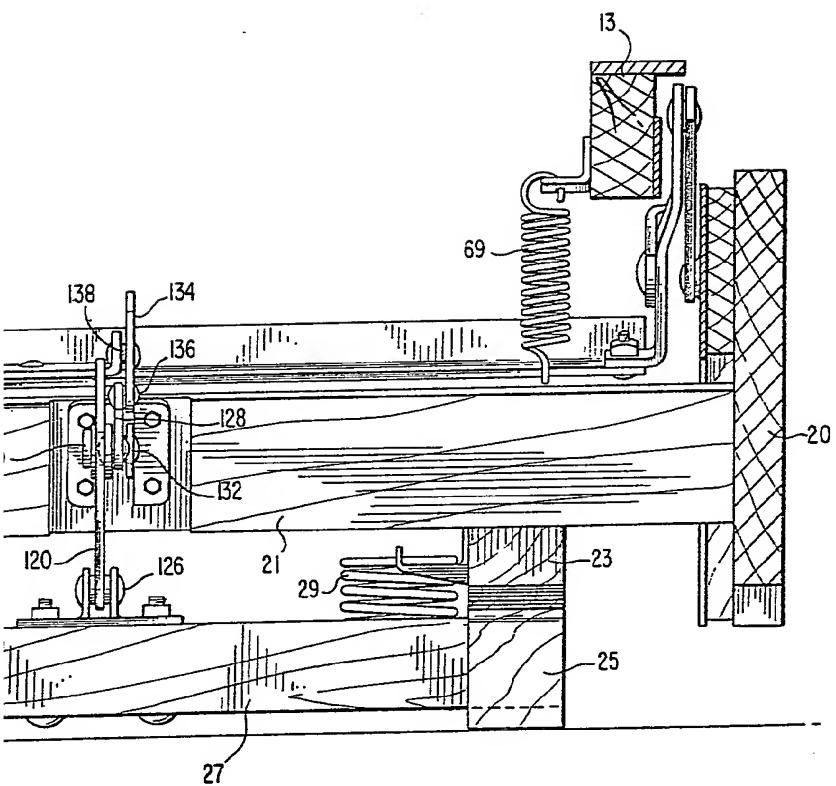


FIG. 6

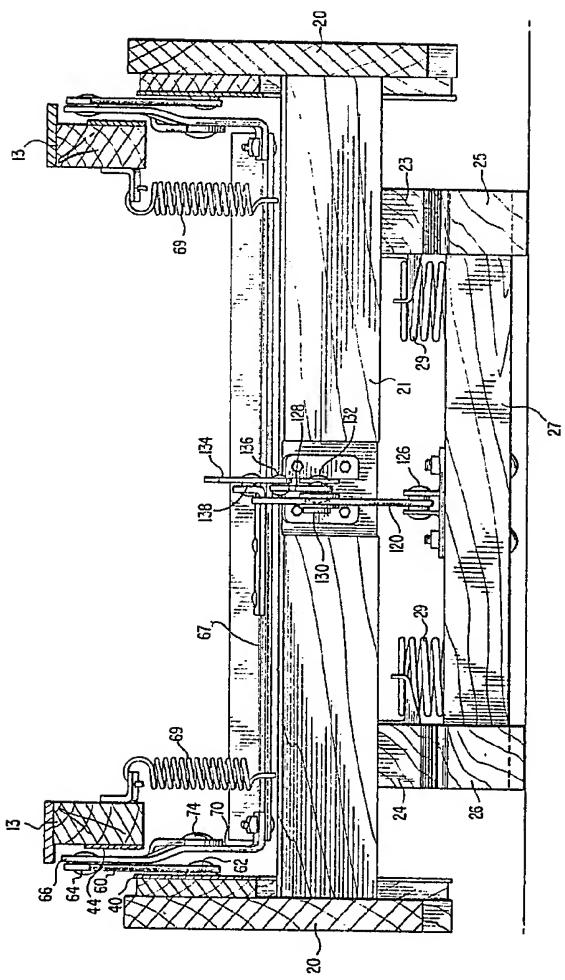


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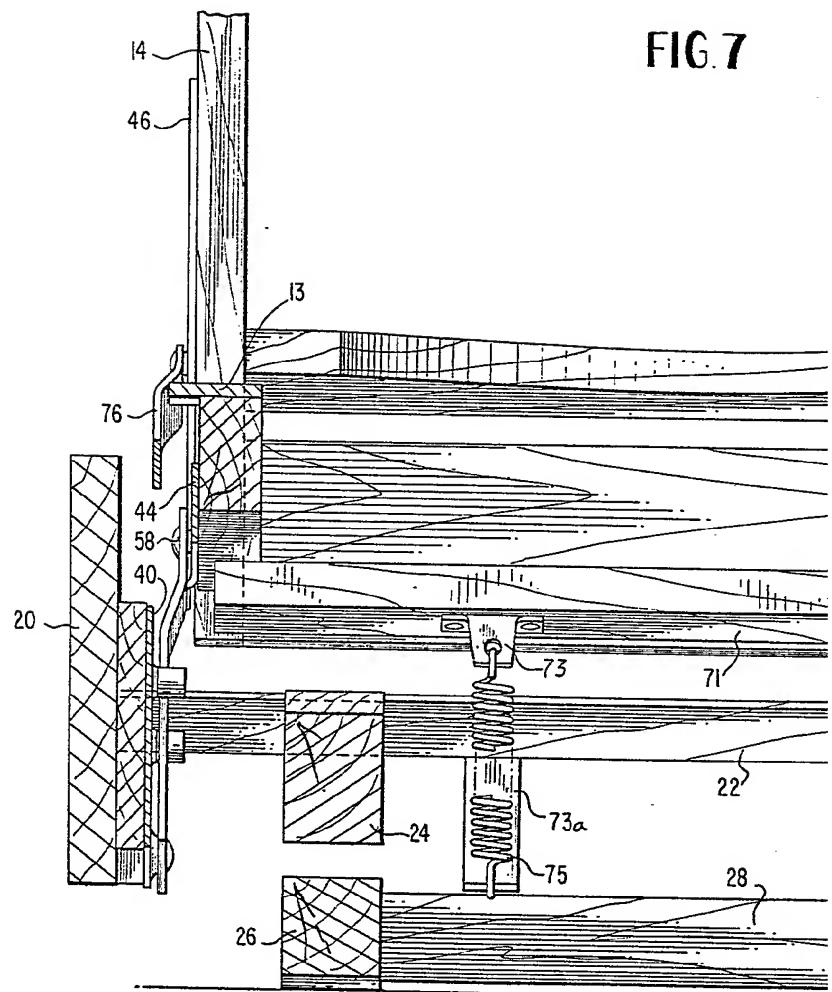


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FIG. 6

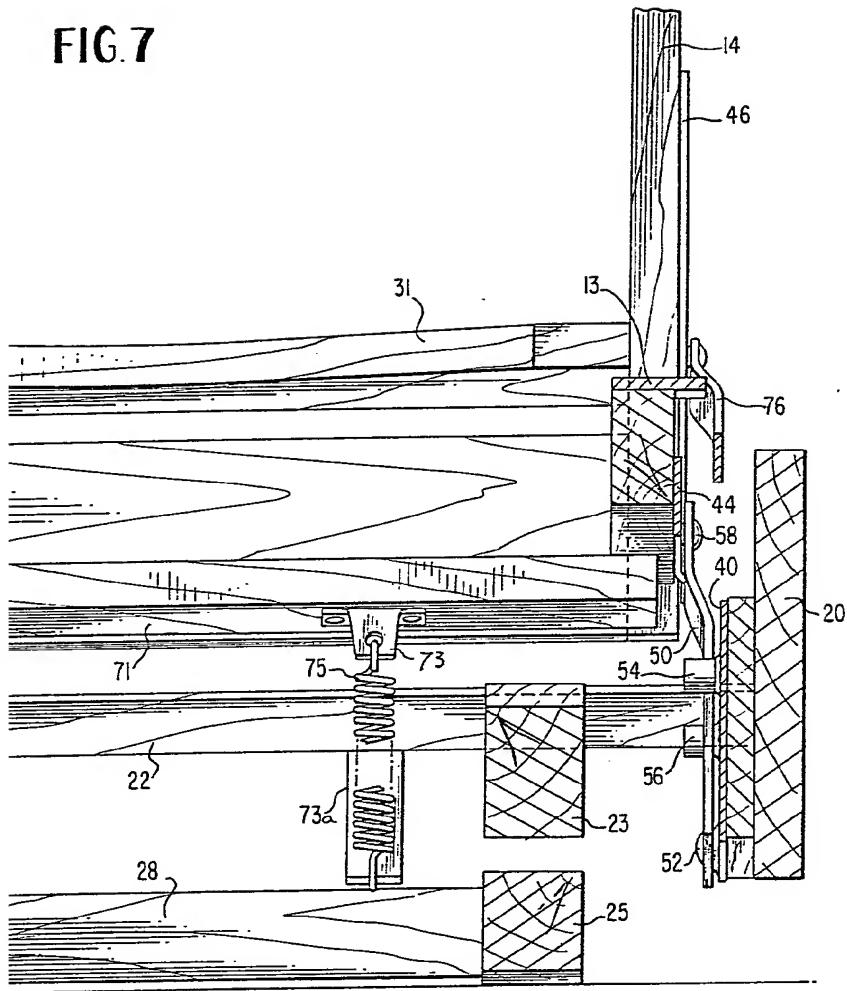


**FIG. 7**



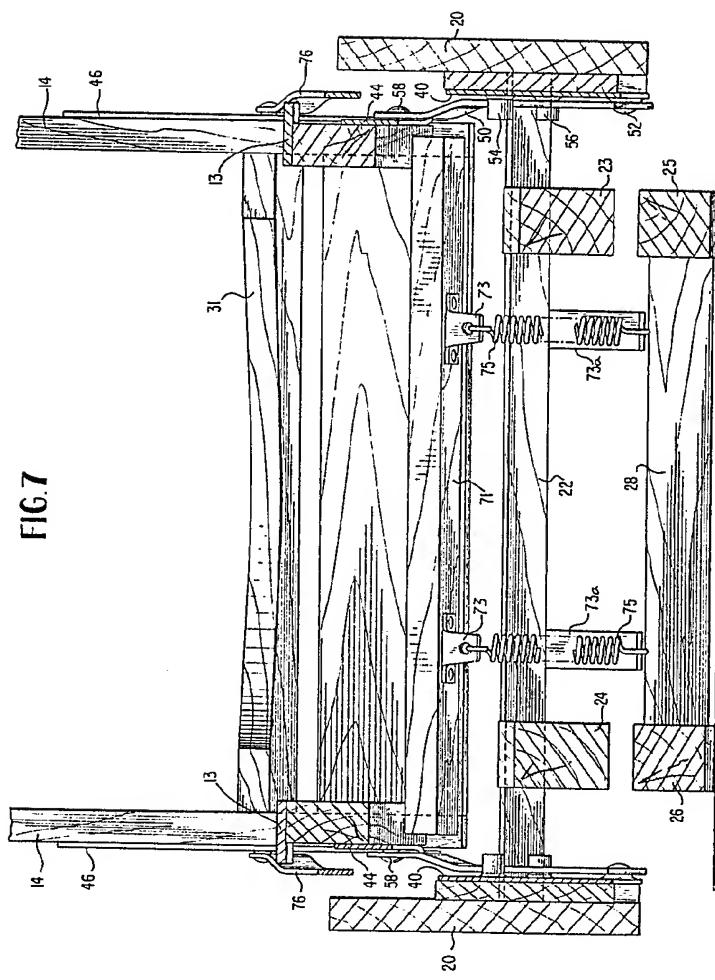
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FIG. 7

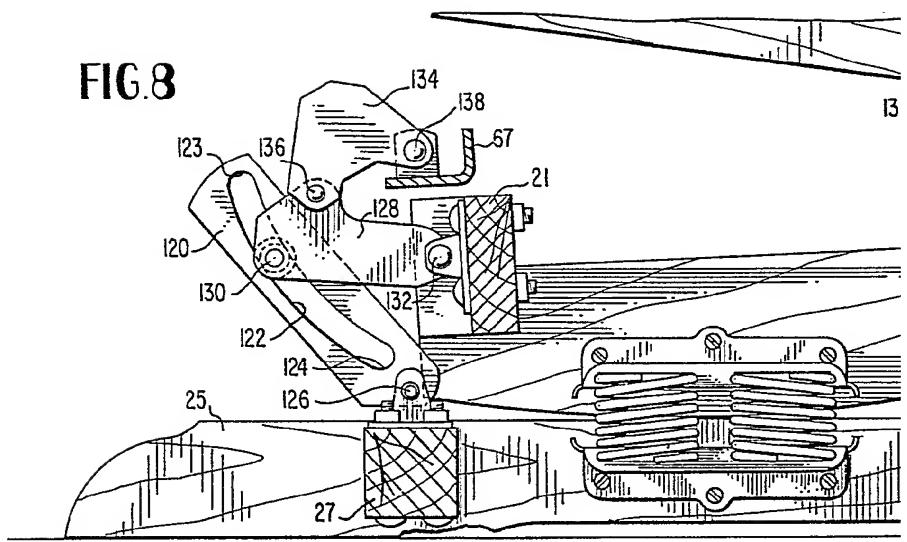


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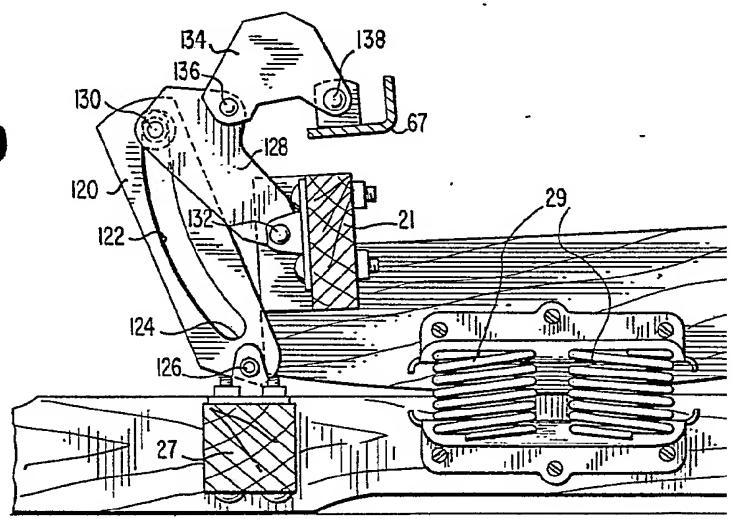
FIG. 7



**FIG.8**



**FIG.9**



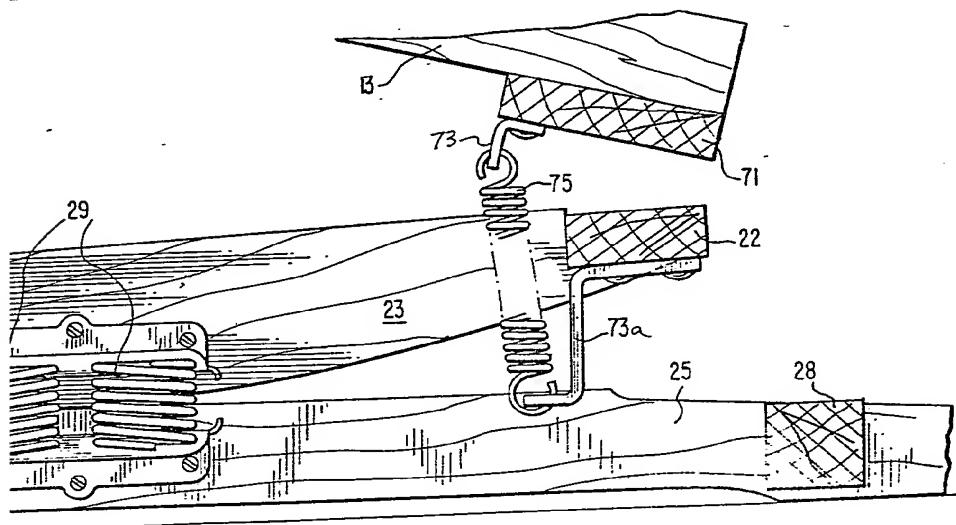
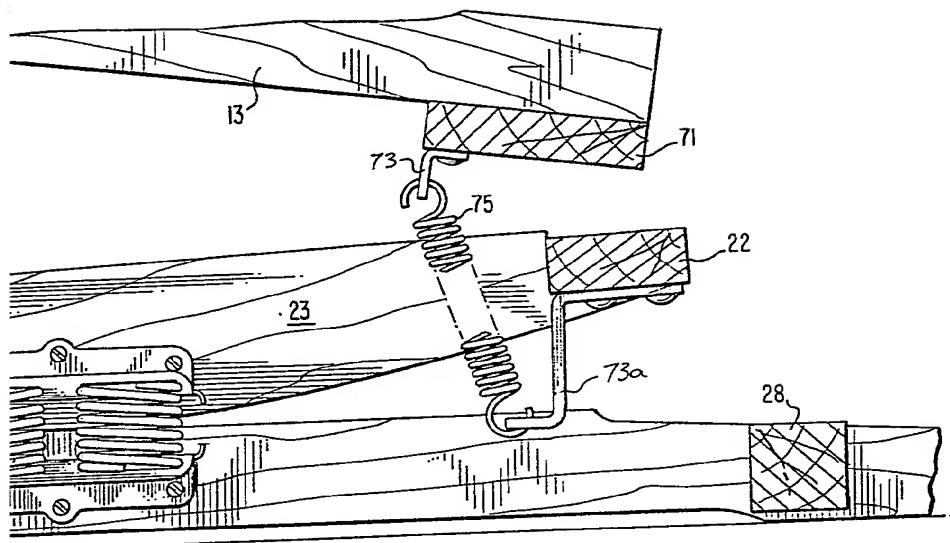
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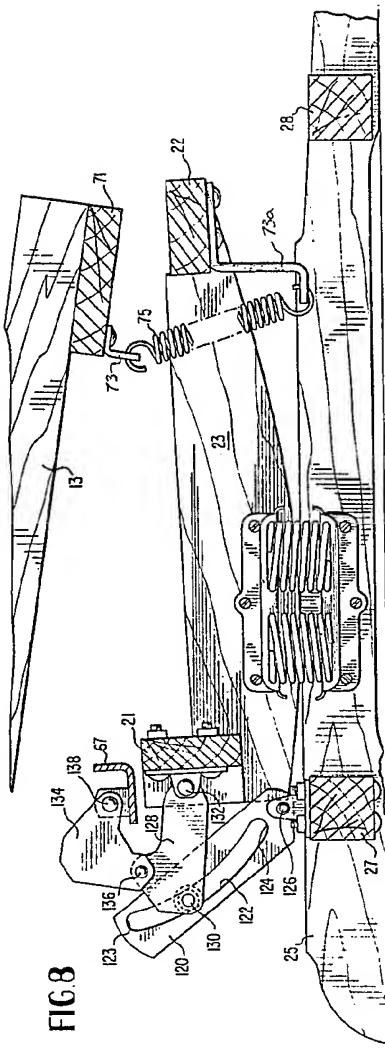


FIG. 8

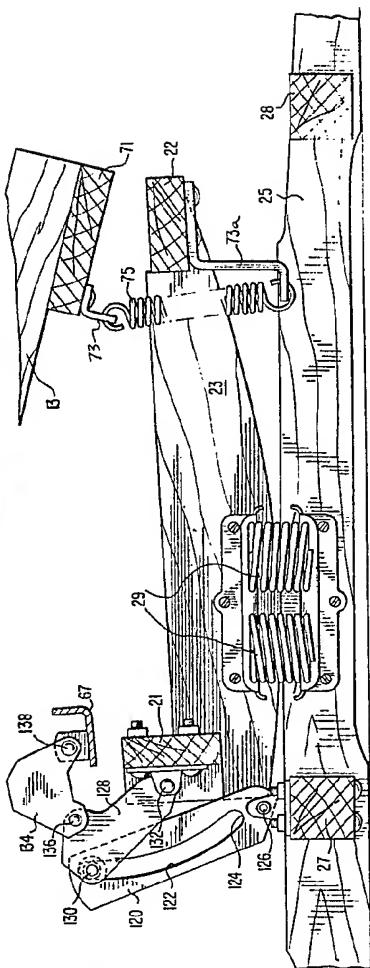
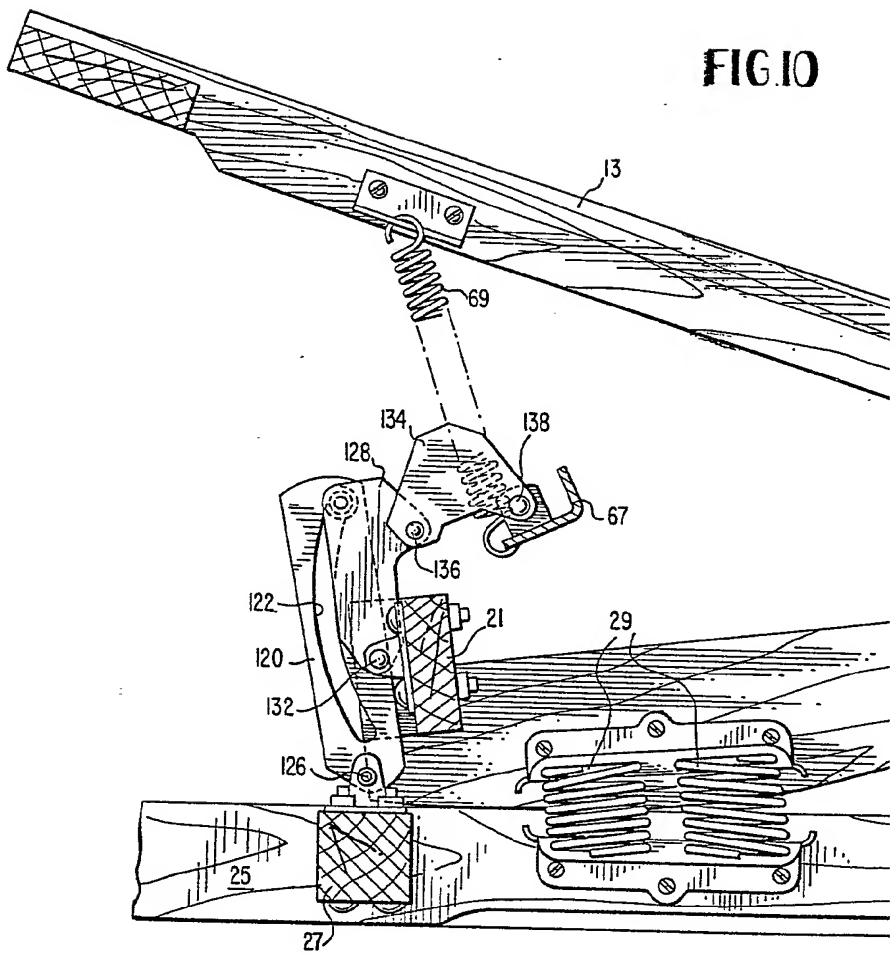


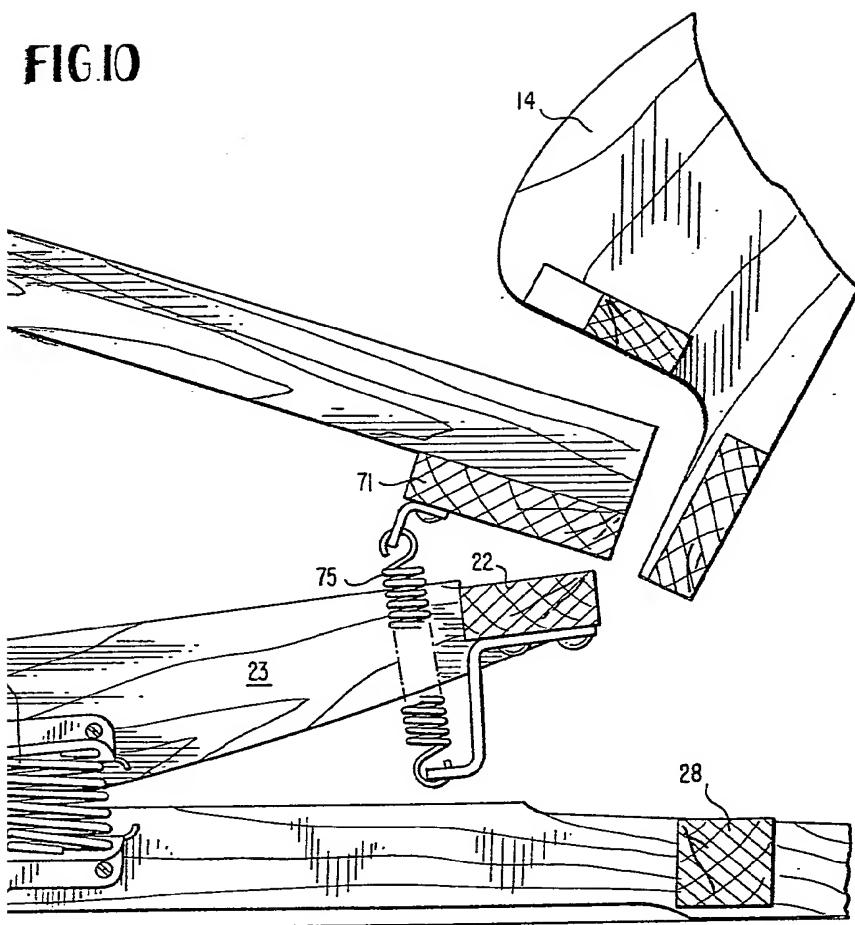
FIG.9

**FIG.10**



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FIG. 10



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FIG10

